# FRIEDMAN & BRUYA, INC. ENVIRONMENTAL CHEMISTS

Date of Report: May 17, 1994 Date Received: May 6, 1994 Project: 3350 Soil, PO #M34419

Date Samples Extracted: May 11, 1994

# RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE FOR PCB AS AROCHLOR 1254 BY GC/ECD (MODIFIED 8080)

Results Reported as µg/g (ppm)

Sample ID	<u>PCB</u>	Internal Standard (% Recovery) 101%	
M34419	0.2		
Quality Assurance			
Blank	<0.05	53%	
M34419 (Duplicate)	0.2	117%	
M34419 (Matrix Spike) % Recovery	103%	125%	
M34419 (Matrix Spike Duplicate) % Recovery	96%	121%	
Spike Level	4		

# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

Date of Report: May 17, 1994 Date Received: May 6, 1994 Project: 3350 Soil, PO #M34419

Date Samples Extracted: May 9, 1994

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLE FOR FINGERPRINT CHARACTERIZATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

#### Sample ID

#### GC Characterization

M34419

The GC trace using the flame ionization detector (FID) showed the presence of high boiling compounds. The patterns displayed by these peaks are indicative of motor oil or transformer oil. The high boiling compounds appeared as a broad hump of peaks eluting from  $n\text{-}\mathrm{C}_{20}$  to  $n\text{-}\mathrm{C}_{35}$  showing a maximum near  $n\text{-}\mathrm{C}_{28}$ . A series of peaks were seen in the GC/ECD trace that are possibly due to the presence of PCB.

The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis.

FRIEDMAN & BRUYA, INC. The 16th Avenue West scattle, WA 98119 (206) 285-8282

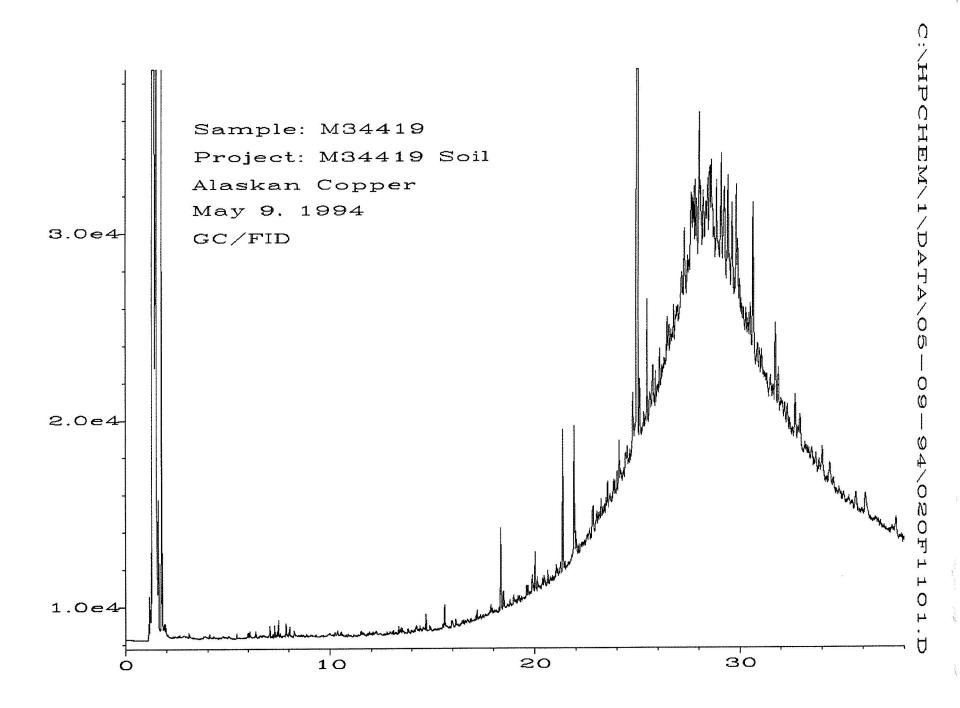
# SAMPLE CHAIN OF CUSTODY

5. BTB . A 5.6.94 2:38

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City, State, Zip 55477		98174			<del></del>			
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	•				Dispose after 30 day Return Samples Call for Instructions			
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FORMS/COC

03/24/94



# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

## **DUPLICATE COPY**

May 17, 1994

### **INVOICE #94ACU0517-1**

Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project 335: Results of testing requested by Gerry Thompson, Project Leader for material submitted on May 6, 1994.

1 soil sample analyzed for Total PCB as	
Arochlor 1254 by GC/ECD @ \$85 per sample	\$ 85.00
1 soil sample characterized by capillary	
gas chromatography @ \$125 per sample	<u>125.00</u>
Amount Due	\$ 210.00

# FRIEDMAN & BRUYA, INC.

#### **ENVIRONMENTAL CHEMISTS**

Andrew John Friedman James E. Bruya, Ph.D. (206) 285-8282 3012 16th Avenue West Seattle, WA 98119-2029 FAX: (206) 283-5044

May 17, 1994

Gerry Thompson, Project Leader Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Enclosed are the results from the testing of material submitted on May 6, 1994 from Project 3350 Soil, PO #M34419.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

Bradley T. Benson

Chemist

BTB/dp

**Enclosures**